

We claim:

- 1        1. An ear probe tip for the end of a probe which can be inserted into an ear canal,  
2 the ear probe tip comprising:
  - 3                a body portion having an inner surface, an outer surface, a first end and a  
4 second end, the inner surface defining a passage that extends the entire length of the body  
5 portion; and
  - 6                a plurality of flexible annular flanges disposed at spaced intervals on the outer  
7 surface of the body portion.
- 1        2. The ear probe tip of claim 1 wherein the body portion is tube shaped.
- 1        3. The ear probe tip of claim 1 wherein one of the plurality of flanges is located  
2 proximal the first end and is disposed on the body portion at a distance from the first end.
- 1        4. The ear probe tip of claim 1 wherein the plurality of flexible annular flanges  
2 have increasingly larger diameters toward the second end.
- 1        5. The ear probe tip of claim 4 wherein the plurality of flanges are disposed on  
2 the body portion at a backward angle toward the second end.
- 1        6. The ear probe tip of claim 4 further comprising a means for pushing the tip  
2 onto the probe.
- 1        7. The ear probe tip of claim 6 wherein the means for pushing the tip onto the  
2 probe is a ring disposed on the body portion proximal the second end.
- 1        8. The ear probe tip of claim 4 wherein the body portion outer surface diameter  
2 increases along the length of the body portion toward the second end.
- 1        9. The ear probe tip of claim 4 wherein the second end further includes a chamfer  
2 adjacent the body portion inner surface.
- 1        10. The ear probe tip of claim 4 wherein the tube and the flanges are constructed  
2 of a transparent material.
- 1        11. The ear probe tip of claim 4 wherein the tube and the flanges are constructed  
2 of alpha gary pvc 3019-40/45.
- 1        12. The ear probe tip of claim 4 wherein the body portion inner surface is  
2 dimensioned to receive the probe end.
- 1        13. The ear probe tip of claim 4 wherein the body portion first end outer diameter  
2 is between 0.140 and 0.185 inches.

1        14. The ear probe tip of claim 4 wherein the body portion first end inner surface  
2 further comprises a flange.

1        15. An ear probe tip for the end of a probe which can be inserted into an ear canal,  
2 the ear probe tip comprising:

3                a body portion having an inner surface, an outer surface, a first end and a  
4 second end, the inner surface defining a passage that extends the entire length of the body  
5 portion; and

6                a means for creating an acoustical seal between the ear tip and the ear canal,  
7 disposed at spaced intervals on the outer surface of the body portion.

1        16. A method for acoustically sealing an ear canal with an ear probe tip positioned  
2 over a probe end which comprises the steps of:

3                providing the ear probe tip;

4                placing the ear probe tip substantially over the probe end whereby the probe  
5 end does not extend past the ear probe tip;

6                inserting the probe end with the ear tip into the ear canal; and

7                flexing the ear probe tip so that an acoustical seal forms between the ear probe  
8 tip and the ear canal.

1        17. An ear probe tip for the end of a probe which can be inserted into an ear canal,  
2 said ear probe tip comprising:

3                a body portion having an inner surface, an outer surface, a first end and a  
4 second end, the inner surface defining a passage that extends the entire length of the body  
5 portion; and

6                at least one flexible annular flange disposed on the outer surface of the body  
7 portion.

1        18. The ear probe tip of claim 17 wherein the at least one flange located proximal  
2 the first end is disposed on the body portion at a distance from the first end.

1        19. The ear probe tip of claim 17 wherein the body portion outer surface diameter  
2 increases along the length of the body portion toward the second end.

1        20. The ear probe tip of claim 17 wherein the at least one flange is disposed on the  
2 body portion at a backward angle toward the second end.

1        21. The ear probe tip of claim 17 wherein the inner surface diameter of the body  
2 portion increases in size along the length of the body portion toward the second end.

1        22. The ear probe tip of claim 17 wherein the inner surface diameter of the body  
2 portion increases in size along the length of the body portion toward the second end and  
3 communicates with a cavity located proximal the second end.

1        23. The ear probe tip of claim 22 further comprising a means for pushing the tip  
2 onto the probe.

1        24. The ear probe tip of claim 23 wherein the means for pushing the tip onto the  
2 probe is a ring disposed on the body portion proximal the second end.

1        25. An ear probe tip for the end of a probe which can be inserted into an ear canal,  
2 said ear probe tip comprising:

3                a body portion having an inner surface, an outer surface, a first end and a  
4 second end, wherein the outer surface has a diameter which increases along the antecedent  
5 length of the body portion toward the second end; and

6                a passage defined by the inner surface that extends substantially the length of  
7 the body portion.

1        26. The ear probe tip of claim 25 wherein the passage has a diameter which  
2 increases from the first end to the second end.

1        27. The ear probe tip of claim 26 further comprising a means for pushing the tip  
2 onto the probe.

1        28. The ear probe tip of claim 27 wherein the means for pushing the tip onto the  
2 probe is a ring disposed on the body portion proximal the second end.

1        29. The ear probe tip of claim 25 wherein the inner surface diameter of the body  
2 portion increases in size near the second end.

1        30. An ear probe tip for the end of a probe which can be inserted into an ear canal,  
2 said ear probe tip comprising:

3                a body portion having an inner surface, an outer surface, a first end and a  
4 second end, wherein the inner surface diameter of the body portion increases in size near the  
5 second end; and

6                a ring disposed on the outer surface of the body portion proximal the second end.

P R O C E S S I N G I N F O R M A T I O N

1        31. The ear probe tip of Claim 30 further comprising at least one flexible annular  
2        flange disposed on the outer surface of the body portion at a distance from the first end.